REMARKS/ARGUMENTS

Upon entry of this Amendment, Claims 1-9, 14-22, 27-29 and 34-45 will be pending in the application.

Claim 1 has been amended to include the features of original dependent Claims 12 and 13. Dependent Claims 10-13 have been canceled.

Independent Claim 21 has been amended to include the features of original dependent Claims 25 and 26. Dependent Claims 23-26 have been canceled.

Independent Claim 28 has been amended to include the features of original dependent Claims 32 and 33. Dependent Claims 30-33 have been canceled.

Similar amendments have been made to independent Claims 41 and 43.

By the present Amendment, all of the independent claims have been amended to more clearly recite that the engine system is electronically controlled and that there is communication with the engine system by a data link. Basis for the amended claim language is provided in the specification, for example, at page 15, paragraph [0069], as well as Claims 12, 13, 25, 26, 32 and 33 as originally filed. A non-limiting example of a data link is shown in Fig. 15.

Claims 1-45 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by zur Loye et al. '683. According to the Office Action, zur Loye et al. '683 discloses a premixed charge compression ignition engine with optimal combustion control including an electronic control unit (20) for a multiple fuel engine utilizing a first fuel and a second fuel, the electronic control unit (20) comprising: means for inputting operating characteristics of an engine system to the electronic control unit (20), wherein at least one of the operating characteristics comprises gas pressure of the second fuel (column 15, line 43 through column 16, line 49), boost pressure of an intake manifold (column 13, lines 8-16), or engine coolant temperature (column 18, lines 10-54); and means for controlling amounts of the first fuel and the second fuel for delivery to the multiple fuel engine based on at least one of the operating characteristics.

Applicants submit that the presently claimed invention is patentable over zur Loye et al. '683. At disclosed at column 11, lines 15-19 of zur Loye et al. '683, a premixed charge compression ignition (PCCI) engine control system is provided which minimizes

emissions while maximizing efficiency. Zur Loye et al. '683 discloses that the PCCI system may optionally include multiple fuel supplies which have different auto ignition properties, such as different octane or methane ratings or activation energy levels, into the intake air flow (column 13, lines 48-54). Although zur Loye '683 mentions the possibility of dual-fuel operation, the focus of the reference is not on controlling the supply of the different fuels based upon operating characteristics, but rather on overall optimization of premixed charge compression ignition engines. This is accomplished by controlling the time at which combustion occurs, the rate of combustion, the duration of combustion and/or the completeness of combustion (see the zur Loye et al. '683 abstract).

Zur Loye et al. '683 does not teach or suggest the combination of inputting operating characteristics of an electronically controlled engine system to an electronic control unit, communicating with the engine system by a data link, and controlling the delivery of first and second fuels to the engine based on the operating characteristics, as presently claimed. Accordingly, it is submitted that independent Claims 1, 21, 28, 41 and 43, and the claims that depend therefrom, are patentable over zur Loye et al. '683.

In view of the foregoing amendments and remarks, it is submitted that Claims 1-9, 14-22, 27-29 and 34-45 are patentable over the prior art of record. Accordingly, an early Notice of Allowance of this application is respectfully requested.

In the event that any outstanding matters remain in connection with this application, the Examiner is invited to telephone the undersigned at (412) 263-4340 to discuss such matters.

Respectfully submitted,

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